COQUITLAM COLLEGE
Established 1982

# COURSE OUTLINE

**Last Revised:** October 1, 2020

## COURSE INFORMATION

**Course Title:** Environmental Geography **Course Number:** GEOG 203 **Credits:** 3

**Total Weeks:** 14 (Fall, Spring)
12 (Summer)

**Total Hours:** 39

**Course Level:** ☐ First Year ☒ Second Year
☐ New ☐ Revised Course
☐ Replacement Course

**Department:** Social Sciences **Department Head:** A. McDougall **Former Course Code(s) and Number(s) (if applicable):** N/A

**Pre-requisites (If there are no prerequisites, type NONE):** GEOG 101 or GEOG 102

**Co-requisite Statement (List if applicable or type NONE):** NONE

**Precluded Courses:** N/A

## COURSE DESCRIPTION

How humans interact with the environment has always played a key role in shaping the climate and the environment. Also, describing the spatial aspects of these interactions is vital in understanding the human-environment system, a critical aspect in measuring the results of human activities on the natural environment. Hence this course, will use global examples to explore the underlying social, economic, and political factors that affect the ways in which humans interact with the physical environment. This will require knowledge on basic features of climate systems, ecosystems, environmental sustainability, environmental/resource management and the physical environment.

The course would involve lectures, seminars, poster presentations, group and individual assignments, discussion forums and exams. Overall, it is anticipated that this course would equip students with the knowledge that can start careers in environmental management, and enable students to make informed decisions on life choices as it relates to living on planet Earth.

## LEARNING OUTCOMES

Upon successful completion of the course, students will be able to:

- Define Geography as a discipline, and Physical Geography; Understand the Human-Physical divide within Geography
- Identify cartography and mapping basics: map scale and projections, modern geoscience techniques, and develop skills in geographical mapping, research, analysis and problem-solving.
- Learn to gather and interpret statistical data both qualitative methods, quantitative methods.
- Understand the science behind human impact on the planet over time and measure the result of human activity on natural landforms and cycles.
- Differentiate between weather and climate and understand the main natural and anthropogenic drivers of climate change
- Understand natural pollution, the role of humans in humans in forcing environmental changes, global warming, and climate change.
- Familiar with environmental planning, design, restoration, and monitoring, as well as in environmental assessment and management, natural resource management, and environmental education.
- Appreciate the complex relationships between environments and societies across space and time.
- Learn the policy issues and environmental governance that are associated with human-nature relationships, and the consequences of environmental changes on both local and global economies.
- Develop good presentation, communication, and cooperation skills particularly relevant for pitching ideas or presenting research outcomes, that would be useful in effective and efficient policies for environmental management.

## INSTRUCTION AND GRADING

Instructional (Contact) Hours:

| Type | Duration |
|---|---|
| Lecture | 20 |
| Seminars/Tutorials | 19 |
| Laboratory | |
| Field Experience | |
| Other (*specify):* | |
| Total | 39 |

**Grading System:** Letter Grades ☒ Percentage ☐ Pass/Fail ☐ Satisfactory/Unsatisfactory ☐ Other ☐

**Specify passing grade:** 50%

**Evaluation Activities and Weighting** (total must equal 100%)

| | | | |
|---|---|---|---|
| Assignments: 30%<br>*3 Assignments: Short and long essays, poster presentation and seminar papers* | Lab Work: % | Participation: 5%<br>*Forum Discussion* | Project: 15%<br>*Specify nature of project:* |
| Quizzes/Test: 5% | Midterm Exams: 15% | Final Exam: 30% | Other: %<br>*Specify:* |

## TEXT(S) AND RESOURCE MATERIALS

Provide a full reference for each text and/or resource material and include whether required/not required.

Geosystems: An Introduction to Physical Geography, Updated Fourth Canadian Edition. Christopherson, R.W., Birkeland, G.H. Byrne, M. Giles, P. Canada, 2018

Environmental Issues. Andrew Frank. Canada.

## COURSE TOPICS

List topics and sequence covered.

**Part A – Earth climate system**

- Course introduction; Essentials of geography/physical geography in the real world
- Earth as a system: Earth's modern atmosphere system – Radiative forcing and energy, climate modelling, feedbacks, carbon cycle, anthropogenic influences, and responses.
- Global temperature, water, and atmospheric moisture – Humidity/temperature impacts on humans
- Weather systems – Weather hazards and impacts
- Water resource and the hydrologic cycle – Global water security, water shortages and water resource management

**Part B – Climate change and ecosystems**

- Introduction to global warming and climate change ideas: effects, impacts, adaptation, vulnerability, mitigation, the IPCC, population and migration, fossil fuels and global economies

- Global climate systems, terrestrial and human biomes – Deforestation, reforestation and forest management, and terrestrial ecosystem responses to climate change
- The geography of soils – Soil erosion, desertification, human impacts on soils and land management
- Ecosystem essential – Communities and species' distributions shift with climate change, biodiversity losses and ecosystem restoration

**Part C – Policy**

- Policy, climate change sceptics, sustainable living, international policies - Kyoto Agreement Canada policies and laws - the Clean Air Act
- Seminars on environmental sustainability, global environmental ethics, policy, and laws
- Poster presentation on representation and visualization of climate data and mitigation polices – Case studies

## NOTES

1. Students are required to follow all College policies. Policies are available on the website at: Coquitlam College Policies
2. To find out how this course transfers, visit the BC Transfer Guide at: bctransferguide.ca